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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,668	01/14/2004	John Carberry	29378.00	4473
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PATTON BOGGS LLP 8484 WESTPARK DRIVE SUITE 900 MCLEAN, VA 22102				
			EXAMINER MEHTA, PARIKHA SOLANKI	
			ART UNIT 3737	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/757,668

Applicant(s)

CARBERRY, JOHN

Examiner

Parikha S. Mehta

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/22/07, 5/16/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Remarks p. 16, filed 20 June 2007, with respect to previous objection to the declaration have been fully considered and are persuasive. The previous objection to the declaration is hereby withdrawn.

2. Applicant's arguments filed 20 June 2007 have been fully considered but they are not persuasive.

Primarily, Applicant argues that there is insufficient motivation to combine the cited Nordstrom (US Patent No. 6,427,082) and Everett (US Patent No. 6,384, 915) references (Remarks p. 16-17).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Furthermore, both Nordstrom ('915) and Everett ('915) are directed towards the same problem solving area of optically classifying the tissues of an internal lumen of the human body in order to detect disease. The mere fact that they are provided for different anatomical areas does not sufficiently preclude the combination of their features by one of reasonable skill in the art. In fact, Everett ('915) anticipates adapting the optical system for a variety of medical purposes (col. 2 lines 1-6), which renders Everett ('915) directly relevant to the Nordstrom ('082).

Applicant further alleges that Nordstrom ('082) actually "teaches against use of, or reconfiguration into, an intravascular catheter," and therefore one of reasonable skill would in fact be discouraged from combining Nordstrom ('082) and Everett ('915) (Remarks p. 17 paragraph 2). Examiner is unable to find any disclosure in the Nordstrom ('082) reference that expressly discourages the use of a catheter. The mere fact that Nordstrom ('082) does not include the catheter does not constitute teaching away from modifying the reference to include a catheter, as is suggested by Applicant.

Applicant also contends that the previous rejection of claims 9, 10, 19, 20, 28-30, 38-41, 52, 61 and 62 in view of Applicant's admitted prior art was improper and does not reasonably combine with Nordstrom ('082) and Everett ('915) to achieve the claimed invention (Remarks p. 17 paragraph 4 – p. 18

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paragraph 3). Namely, Applicant argues that the instant disclosure does not admit that it is known in the art to combine a treatment excimer laser with an optical diagnostic system, and goes on to restate an excerpt of the specification to show that Applicant does not admit that it is known to combine treatment and diagnostic optical systems (Remarks p. 18). It appears that Applicant is mistakenly arguing the content of paragraph 4 (as filed on 14 January 2004), not paragraph 8 as cited by the previous rejection. Examiner's previous rejection is based on paragraph 008, the first paragraph of page 4 of the specification, which reads: "Devices combining some navigation or diagnostic element, such as a Michelson interferometer, with a treatment element, such as a [sic] excimer laser, are known to those skilled in the art." It is clear from this disclosure that Applicant is indeed admitting that it is known in the art to combine treatment and diagnostic optical devices. Accordingly, the previous rejection in view of Applicant's admitted prior art is maintained and reiterated herein.

Finally, Applicant asserts that the amendments to claim 23, 33 and 45 sufficiently distinguish over the cited prior art mirror because the claimed mirror is used for a different purpose than the prior art (Remarks p. 18 paragraphs 4-5). A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Since, as previously established, the prior art mirror is structurally identical to the claimed mirror, the prior art sufficiently anticipates the claimed invention.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordstrom et al (US Patent No. 6,427,082), hereinafter Nordstrom ('082), in view of Everett et al (6,3084,915), previously cited by Applicant, hereinafter Everett ('915).

Regarding claims 1-6, 12-16, 21, 22, 24, 25, 31-32, 34, 35, 42-44, 46-49, 53-58 and 63-67, Nordstrom ('082) teaches an optical screening device, and a method for using the device, wherein the

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device includes a plurality of optical inputs (col. 5 lines 33-42), a plurality of optical outputs (col. 6 lines 18-20), a plurality of diagnostic fibers (col. 5 lines 54-58), and first, second and third switches (Fig. 1 elements 11, 14 and 17) as claimed in the instant application. Nordstrom ('082) additionally provides a controller for all switches (col. 6 lines 39-46). As the source of Nordstrom ('082) must be optically connected to the diagnostic fibers in order for the system to be functional, it follows that such a connection must exist, and it constitutes an optical junction as claimed in the instant application.

The system of Nordstrom ('082) fails to include a catheter, a conduit, and a mirror at the end of the diagnostic fibers. In the same problem solving area, Everett ('915) provides a catheter based optical sensing system (Abstract) for navigating blood vessels, which includes a catheter tube for angioplasty balloon insertion (col. 6 lines 17-21). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Nordstrom ('082) to include the catheter and tube of Everett ('915), in order to adapt the system for interventional cardiovascular applications.

Regarding claims 7, 8, 17, 18, 26, 27, 36, 37, 41, 5, 51, 59 and 60, Nordstrom ('082) fails to provide an optical circulator as the optical junction. Everett ('915) teaches that a circulator is beneficial for optically isolating the source and enhancing system sensitivity (col. 4 lines 20-28). Additionally, the circulator taught by Everett ('915) constitutes an optical dead-end as claimed in the instant application. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Nordstrom ('915) to further include an optical circulator, in view of the teachings of Everett ('915).

Regarding claims 9-1, 20, 19, 20, 28-30, 38, 39, 40, 41, 52, 61 and 62, neither Nordstrom ('082) nor Everett ('915) teach the inclusion of a treatment laser and an optical fiber for delivering the treatment laser. However, in the specification of the instant application, Applicant admits that it is known in the art to include excimer laser treatment means in optical diagnostic catheter systems (§ 0008). It would then have been obvious to one of ordinary skill in the art at the time of invention to further modify the system of Nordstrom ('082), previously modified by Everett ('915), to include a fiber and source for laser treatment, and to modify the controller and switches appropriately to protect the source input from harmful reflections of the treatment laser source, in view of the teachings of Everett ('915) and Applicant's admitted prior art.

Regarding claims 23, 33 and 45, Nordstrom ('082) additionally fails to provide a mirror disposed at an angle of substantially 45° at the end of the diagnostic fibers. Everett ('915) teaches an embodiment of the reference invention wherein the diagnostic fibers terminate in a mirror angled at 45 degrees in order to maintain polarization of the source light. It would have been obvious to one of ordinary skill in the art

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at the time of invention to include the mirror of Everett ('915) in the invention of Nordstrom ('082) in order to maintain polarization of the input source light at the end of the diagnostic fiber.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Parikha S. Mehta whose telephone number is 571.272.3248. The examiner can normally be reached on M-F, 8 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571.272.4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Parikha S. Mehta

Examiner – Art Unit 3737



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